



FLIGHTMATIC, INC.

Aviation training devices

F207 FLIGHT SIMULATOR

Piper Cherokee 140

VISTA SERIES GENERAL AVIATION VISUAL AND INSTRUMENT FLIGHT SIMULATOR

DESCRIPTION

The F207 is a low cost, full flight simulator with the appearance and flight characteristics of a Cherokee 140. It can be used to teach all primary flight maneuvers and instrument procedures. Training can be done in simulated VFR or IFR conditions with all the instruments and controls functioning realistically. *Flight* in the F207 requires the development of the same skills and techniques required for visual and instrument aircraft operation.

FEATURES

- Panoramic projection
- Primary flight, ground reference, full instruments
- Emergency procedure training
- Fully automatic solo flight
- Solid state reliability
- 100% FAA 141 approved
- VFR and IFR flight in day or night conditions
- Automatic pen recorder
- Interior IFR plotting chart with aircraft position indicator showing position, heading and track



OPERATIONAL CONTROLS

Control Yoke	Starter Switch (Ign.)
Elevator Trim	Throttle Control
Rudder Pedals	Mixture Control
Parking Brake	Fuel Selector Switch
Flap Control (Sw.)	Fuel Pump Switch
Flap Position Indicator	Alternator Switch
Carburetor Heat Control	Stall Warner
Master Switch	Stall Warning Light
Ignition Switch	

EQUIPMENT CONTROLS

Position Light Switch	Engine Sound—
Attitude Display Switch	Off/On/Volume
Chart Drive Switch	Key Switch & Indicator Light

STANDARD INSTRUMENTS AND AVIONICS

ENGINE

Hobbs Meter
Tachometer
Fuel Pressure Indicator
Fuel Quantity Indicator (2)
Suction Indicator
Alternator Ammeter
Oil Temperature Indicator
Oil Pressure Indicator

FLIGHT

Attitude-Gyro Indicator
Directional-Gyro Indicator
Altimeter
Vertical Speed Indicator
Airspeed Indicator
Turn Coordinator
Compass
Aircraft Clock

AVIONICS

ADF Bearing Indicator
ADF-RMI Ind. (Optional)
VOR/ILS Indicator
VOR Bearing Indicator
NAV/COM Radio No. 1
NAV/COM Radio No. 2
ATC Transponder
DME Miles Indicator
MKR BCN—Off/On/Volume
MKR BCN Indicators

INSTRUCTOR CONTROLS

Wind Velocity Control
Wind Direction Control
Fuel Quantity Control

Failures:

Gyro Suction Fail
Oil Temp./Pressure Fail
Engine Fail
VOR/LOC Fail
DME Fail
ADF Fail
MKR BCN Fail

VFR (BASIC VISUAL FLIGHT)

VISTA simulators, for the first time, bring the realism of panoramic projection into general aviation flight training. A special visual flight projector reacts precisely and realistically to aircraft controls. Your students can duplicate and practice every VFR flight maneuver . . . climbs, descents, glides, rectangles, turns and stalls . . . all with true reference to ground. A flight pattern reference chart can be placed in front of the student, showing traffic patterns, S-turns, or any other pattern you wish to create. Panoramic projection can be superimposed easily over these ground reference patterns by the flip of a switch

REALISTIC GROUND TRAINING

VISTA s are the only general aviation-level trainers offering the total realism of visual flight simulation. Panoramic projection adds an exciting new dimension to student training not available in any other comparably-priced equipment. Attitude changes are "seen out the window", just as they would be in the aircraft. Panel instruments and visual horizon automatically show all the effects of rudder, elevator and aileron movements. There's even realistic engine sound which responds smoothly and accurately to throttle changes.

**IFR (RADIO NAVIGATION)

All Flightmatic Trainers have a unique, airplane-shaped Position Light to show the student what's happening as he intercepts, tracks, holds and maneuvers. The Position Light appears on a plotting board above the instrument panel and shows the exact position and heading visualization required for instrument flight. An IFR film strip can be projected to simulate IFR environment. A complete package of avionics permits teaching and practice of virtually every type of instrument approach and procedure. A plotting board monitors the student's progress via an automatic inked stylus. This map display becomes a permanent part of the student's progress record.

**CO-NAV option available.

SAFER, MORE EFFECTIVE

VISTA Flight simulators provide a ground training atmosphere geared as closely as possible to the true flight experience. Your students learn on a VISTA, then confidently advance to flight lessons in the aircraft with the same panel configuration and controls. The instruments they use, what they see and feel . . . bank, power, slip and skids . . . are all familiar. The result, rapid progress by the student toward a safe solo flight and eventual certification. All models incorporate provisions for safe emergency procedures training.

APPLICATIONS AND TEACHING CAPABILITY

VFR
Instrument &
Control Functions
Airplane Familiarization
Take-Offs
Landings
Straight & Level
Normal Turns
Steep Turns
Climbs
Glides
Slow Flight
Slips
Stalls & Accelerated
Stalls
Attitude Flight
Flap Effects
Partial Panel
Solo Practice
Flight Path
Recorder
Projected Attitude
(VFR, IFR, Night)

**GROUND
REFERENCE**
Wind Effect
Crab Angles
Traffic Patterns
Rectangular Patterns
Eights On Pylons
Chandelles
"S" Turns Across
Road
Turn-Around-A-Point
Forced Landings
Touch-N-Go

Solo Practice
Flight Path
Recorder
Projected Attitude
(VFR, IFR, Night)

IFR
Attitude Instrument
Flight
Communications
ATC Procedures
VOR
VORTAC
ADF (LOM)
MARKER BEACONS
ILS
LOCALIZER
DME

Solo Practice
Flight Path
Recorder
Projected Attitude
(VFR, IFR, Night)



EQUIPMENT SPECIFICATIONS

CHARACTERISTIC	SPECIFICATIONS
Power Requirements	115V, 50—60Hz, single phase, 650 watts
Overall Size*	59" L x 40" W x 62" H
Weight, Lbs.	415
Crated Size	64" L x 45" W x 67 1/2" H
Crated Weight, Lbs.	555
Operating Temperature	—10° C to 50° C
Storage Temperature	—25° C to 70° C
Humidity Range	0 to 90% relative humidity at 32° C
Control Yoke Travel	Pitch Axis: 5 1/2", Roll Axis: 60° L & R
Attitude Gyro Limits	Pitch: ±15° Bank: 60° L & R
Attitude Display Limits	Pitch: ±15° Bank: 60° L & R, Turn Rate:
Directional Gyro Turn Rate	8° /sec. max.
Altimeter	0—10,000 Feet, 2—pointer, 1,500 fpm max. rate.
Navigation Chart Area	600 sq. miles, 1 inch = 1 nautical mile**
Wind Direction & Velocity	Varied through 360°, 0 to 40 knots
NAV AID Sensitivity	VOR: ±10° F.S., C.D.I., LOC: ±2.5° F.S., G/S: +50 ft. 2-dot deflection.

*Unit disassembles for easy installation through standard doors.

— WARRANTY —

VISTA Flight Trainers are guaranteed by Flightmatic, Incorporated, against defects in materials and workmanship. Parts and replacement service will be supplied at no charge for a period of ninety (90) days from date of delivery. All parts are fully guaranteed for a period of two (2) years from date of delivery. Guarantees do not apply to equipment improperly handled or operated in excess of specified limits.